

Notice of Allowability

Application No.

09/233,377

Examiner

Thanhha Pham

Applicant(s)

SANDHU ET AL.

Art Unit

2813

Am

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/30/04.
2. ☒ The allowed claim(s) is/are 45,55-58 and 71-73.
3. ☒ The drawings filed on 30 August 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. This application is in condition for allowance except for the presence of claims 24, 52-54 and 59-61 to a species non-elected without traverse. Accordingly, claims 24, 52-54 and 59-61 should be cancelled.
3. Amendment of lines 8 and 9 of claim 45 and line 10 of claim 71 is made by Examiner to correct informal error according to MPEP 1302.01(J)
4. The application has been amended as follows:
 - Cancel claims 24, 52-54 and 59-61.
 - In claim 45,
 - Line 8, change "a first crystalline phase" to – the first crystalline phase –
 - Line 9, change "a first crystalline phase" to – the first crystalline phase –
 - In claim 71,
 - Line 10, change "a first crystalline phase" to – the first crystalline phase –

Allowable Subject Matter

5. Claims 45, 55-58 and 71-73 are allowed.
6. The following is an examiner's statement of reasons for allowance: Recorded Prior Art fails to disclose or suggest a method of forming a refractory metal silicide

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comprising: forming a refractory metal silicide on and in direct physical contact with an upper surface of the compressive stress inducing material layer, the refractory metal silicide comprising a first crystalline phase; and after forming the refractory metal silicide comprising the first crystalline phase, annealing the refractory metal comprising the first crystalline phase at a temperature of less than or equal about 750oC to form a refractory metal silicide of a second crystalline phase; the compressive stress inducing material inducing sufficient compressive stress to lower an energy of action for transforming of the first crystalline phase to the second crystalline phase as characteristics in claim 45. Recorded Prior Art also fails to disclose or suggest a method of forming a refractory metal silicide comprising: after forming the refractory metal silicide comprising the first crystalline phase, annealing the compressive stress inducing material layer and the refractory metal silicide comprising the first crystalline phase to form a refractory metal silicide of a second crystalline phase; the compressive stress inducing material inducing sufficient compressive stress to lower an energy of activation for transformation of the first crystalline phase to the second crystalline phase as characteristics in claim 71.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhha Pham whose telephone number is (571) 272-

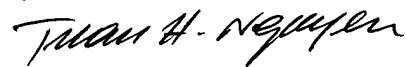
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1696. The examiner can normally be reached on Monday and Thursday 9:00AM - 9:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thanhha Pham



Tuan H. Nguyen
Primary Examiner